

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2001-167745

(43)Date of publication of application : 22.06.2001

(51)Int.Cl.

H01M 2/02  
H01G 9/155  
H01M 2/10  
H01M 6/02  
H01M 8/24  
H01M 10/40

(21)Application number : 11-348904

(71)Applicant : POWER SYSTEM:KK  
NHK SPRING CO LTD

(22)Date of filing : 08.12.1999

(72)Inventor : YAMAGISHI MASAOKI  
SHIGEMATSU RYOHEI

## (54) PRESSURE STRUCTURE FOR CELL LAMINATED STRUCTURE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a pressure structure for cell laminated structure, which, with a uniform device dimension and pressure regardless of dimensional errors of a laminated cell, has a small size and an increased energy-filling rate.

SOLUTION: By pressing the laminated cells with a coned dish spring, swelling in a cell laminating direction can be inhibited, a dimension of devices having a cell laminated structure, such as an electric double layer capacitor, and a fuel cell or the like, can be constantly maintained regardless of a dimensional error of the laminated cells, and a handling property of the devices can be improved. In particular, the pressure is applied to the regions in which a load is substantially not changed even when a bending moment of the dish spring is changed. Thus, the dimensional error of the respective cells can be absorbed without substantially accompanying a load change, and a difference in pressure is removed, and highly reliable devices can be provided in a stable manner. In addition, the devices are simple in structure and easy to be fabricated.

